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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,602	09/29/2003	Yoon Gon Kim	1594.1250	8536

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EXAMINER

LEUNG, PHILIP H

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/671,602	Applicant(s) KIM	
	Examiner Philip H Leung	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The drawings filed 9-29-2003 are acceptable.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 13, 25 and 30 are rejected under 35 U.S.C. 102(a) as being anticipated by LG Electronics Inc (KR 2003-23056).

LG shows a microwave oven comprising: a cabinet partitioned into a microwave cooking cavity 2, a toasting cavity 200, and a machine room 100; a microwave generating unit 110 installed in the machine room to generate microwaves into the microwave cooking cavity; a heating unit (not shown but inherent) installed in the toasting cavity to heat the toasting cavity; and a ventilating unit 130 to ventilate the toasting cavity (see Figures 1-4 and the English abstract).

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5. Claims 1, 2, 4, 13, 14, 16, 25, 26, 28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikeda (JP 62-297634).

Ikeda shows a microwave oven comprising: a microwave generating unit 4 located in a first cavity (not shown but all microwave ovens inherently include an outer casing covering the machine room and the heating chamber) to generate microwaves into a second cavity (the lower part of the heating chamber 1 which is partitioned into upper and lower parts) adjacent to the first cavity; at least one heating unit 2 located in a third cavity (the upper part) proximate to the second cavity; and a ventilating unit 3 to ventilate the third cavity (claim 13). In regard to claims 1 and 25, the upper part of the heating chamber is the claimed "toasting cavity" as it uses the upper part for crisping food by the heater 2 (see Figures 1 and 2 and the English abstract).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6-9, 13-16, 18-21, 25-28 and 30 are rejected under 35 U.S.C. 103(a) as being obvious over Hishiyama (JP 1-305231) or Morii (JP 64-38524), in view of LG Electronics Inc (KR 2003-23056) or Ikeda (JP 62-297634).

Hishiyama shows a microwave oven comprising a cabinet partitioned into a microwave cooking cavity 12, a toasting cavity 11, and a machine room; a microwave generating unit installed in the machine room to generate microwaves into the microwave cooking cavity; a

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heating unit installed in the toasting cavity to heat the toasting cavity. It also shows a ventilating unit 17 for cooling the electrical components in the machine room (see Figure 1 and the English abstract). Morii also shows a microwave oven comprising a cabinet partitioned into a microwave cooking cavity 3, a toasting cavity 4, and a machine room 12; a microwave generating unit 8 installed in the machine room to generate microwaves into the microwave cooking cavity; a heating unit 5, 6 installed in the toasting cavity to heat the toasting cavity (see Figures 1-3 and the English abstract). Therefore Hishiyama or Morii shows every feature as claimed except for the use of the ventilation unit for venting the toasting cavity. LG shows a microwave oven comprising: a cabinet partitioned into a microwave cooking cavity 2, a toasting cavity 200, and a machine room 100; a microwave generating unit 110 installed in the machine room to generate microwaves into the microwave cooking cavity; a heating unit (not shown but inherent) installed in the toasting cavity to heat the toasting cavity; and a ventilating unit 130 to ventilate the toasting cavity (see Figures 1-4 and the English abstract). Ikeda also a microwave oven comprising: a microwave generating unit 4 located in a first cavity (not shown but all microwave ovens inherently include an outer casing covering the machine room and the heating chamber) to generate microwaves into a second cavity (the lower part of the heating chamber 1 which is partitioned into upper and lower parts) adjacent to the first cavity; at least one heating unit 2 located in a third cavity (the upper part) proximate to the second cavity; and a ventilating unit 3 to ventilate the third cavity (toasting cavity) (see Figures 1 and 2 and the English abstract). It would have been obvious to an ordinary skill in the art at the time of invention to modify Hishiyama or Morii to use a ventilating fan to provide air into the toasting cavity for better heating efficiency and better toasting result, in view of the teaching of LG or Ikeda.

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8. Claims 5, 10-12, 17, 22-24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hishiyama (JP 1-305231) or Morii (JP 64-38524), in view of LG Electronics Inc (KR 2003-23056) or Ikeda (JP 62-297634), as applied to claims 1-4, 6-9, 13-16, 18-21, 25-28 and 30 above, and further in view of Nitta (JP 55-110835) or Yoshikawa (JP 4-148115).

As set forth above, Hishiyama or Morii combined with LG or Ikeda shows every feature as claimed except for the use of a deodorizing filter. Nitta shows that it is well known in the art to use a filter 11, 12 in the cooking chamber 3 for removing smoke and smell generated from the cooking (see Figures 1 and 2 and the English abstract). Yoshikawa also shows the use of a deodorizing filter for purification of the cooking chamber of a microwave oven (see Figures 1 and 2 and the English abstract). It would have been obvious to an ordinary skill in the art at the time of invention to modify Hishiyama or Morii combined with LG or Ikeda to use a deodorizing filter for removing smell and purifying the cooking air of the microwave oven, in view of the teaching of Nitta or Yoshikawa.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

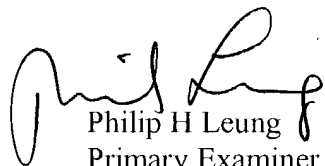
Choi et al (US 6,539,840), Han et al (US 2004/0050841) and Arai (JP 2-4131) are further cited to show microwave ovens with a toaster having various claimed features.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (703) 308-1710.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Philip H Leung
Primary Examiner
Art Unit 3742

P.Leung/pl
9-27-2004